

*Papers read before the Society from February 1879 to February 1880.*

1879.

- Mar. 14. Observations of Encke's comet, 1878. J. Tebbutt.  
 Les longueurs du pendule à seconde à Poulkova, à St. Pétersbourg, et aux différents points de la Russie occidentale, corrigées de l'influence produite par la flexion des supports du pendule construit par M. Repsold. Prof. A. Sawitsch.
- A formula for reducing precession in right ascension and declination from Bessel's to Struve's constants. Prof. A. Krueger.
- Observations of absorbing vapours upon the sun. E L. Trouvelot.
- On the change in the errors of Hansen's lunar tables between 1848 and 1876. W. T. Lynn.
- Note on  $\eta$  *Draconis*. W. T. Lynn.
- Remarks on Mr. Sadler's paper in the January number of the *Monthly Notices*. C. G. Talmage.
- Notes on a Persian MS. of Ulugh Beigh's catalogue of stars belonging to the Royal Astronomical Society. E. B. Knobel.
- On the probable presence of oxygen in the solar chromosphere. A. Schuster.
- On a new method of determining astronomical refractions. D. Gill.
- Note on systematic errors in right ascension depending on magnitude. D. Gill.
- On the computation of the heights of lunar mountains from photographic measurements. Prof. C. Pritchard.
- Note on Gruithuisen's lunar crater "Schröter." J. Birmingham.
- April 9. An apparently new variable star. J. L. E. Dreyer.  
 Ephemeris for physical observations of *Jupiter*, 1879. A. Marth.
- Notes on large telescopes, with suggestions for mounting reflectors. A. A. Common.
- On the desirability of photographing *Saturn* and *Mars* at the next conjunction. A. A. Common.
- On some formulæ for expressing the value of the eccentric anomaly &c. in functions of the mean anomaly. A. de Gasparis.
- Note on the death of M. E. de Chazal. Lord Lindsay.

May 9. Observations of Brorsen's comet, February 1879. J. Tebbutt.

Meteor radiant points of April 9-12. W. F. Denning.

Catalogue of 222 stationary meteors. W. F. Denning.

Observations of Brorsen's comet, 1879. H. C. Russell.

Observations of Brorsen's comet. Lord Lindsay.

Two short and easy methods of correcting lunar distances. J. J. Astrand.

Note on Sir John Herschel's reference catalogue of double stars. Prof. C. Pritchard.

On the determination of the solar parallax from the parallactic inequalities in the longitude of the moon, and on the correction to Hansen's coefficient of the annual equation. E. Neison.

Order of publication of successive volumes of the *Observations de Pulkova* (extract from a letter to Mr. Downing). O. von Struve.

On the spectrum of Brorsen's comet, observed at the Royal Observatory, Greenwich. Astronomer Royal.

June 13. Observations of Brorsen's comet, February and March 1879. J. Tebbutt.

An important invention, giving perfectly uniform rotary motion in driving clocks. H. C. Russell.

Determination of the longitudes of Berlin, Munich, Leipzig, Vienna, Paris, and Pulkowa. T. Oppolzer.

On the values of the constants in the equation  $rA_r x^{(r)} + rA_{r-1} x^{(r-1)} + \dots + rA_1 x + \dots + rA_0 - y_x = 0$ ; obtained by the method of least squares, from the  $n+1$  values of  $y_x$  when  $x = 0, 1, 2, \dots, n$ ;  $n$  being greater than  $r$ . C. Carpmael.

On the value of the solar parallax derived from observations of Mars made at Ascension during the opposition of 1877. D. Gill.

On the knowledge of the zodiacal light possessed in the east from of old. J. W. Redhouse.

Spectroscopic observations of the motion of stars in the line of sight, made at the Temple Observatory, Rugby. G. M. Seabroke.

Note on the Cape catalogue of 12,450 stars (extract from a letter to the Astronomer Royal. E. J. Stone.

A new method of controlling the driving clock of an equatoreal. R. C. Johnson.

Preliminary note on the Babylonian astronomy. The Babylonian calendar. R. H. M. Bosanquet and A. H. Sayce.

On the coincidence of the bright lines of the oxygen spectrum with bright lines in the solar spectrum. H. Draper.

On the applicability of the mean refractions of Bessel's fundamenta to the Washington observations. A. M. W. Downing.

Note on the photographic semi-diameter of the moon.

Prof. C. Pritchard.

Théorie analytique des mouvements des satellites de *Jupiter*. M. Souillart.

Note on the transit of the earth and moon across the sun's disk as seen from *Mars* on November 12, 1879, and on some kindred phenomena. A. Marth.

On a new method of mounting an equatoreal. Rev. J. Pearson.

Nov. 14. Ephemeris for physical observations of *Mars*, 1879. A. Marth.

Note on the difference of variation of gravity at Revel and St. Petersburg, and on Grischow's pendulum observations at other stations. Major J. Herschel.

On the physical configuration of *Mars*. W. Harkness.

On the change in the mean error of longitude of Hansen's lunar tables since 1876. W. T. Lynn.

Mean areas of umbræ, whole spots, and faculæ upon the sun's disk, as measured on photographs taken at the Royal Observatory, Greenwich, for each rotation of the sun from 1873, July 11. Astronomer Royal.

The nebula in the *Pleiades*. Maxwell Hall.

Observations of comets *Palisa* and *Hartwig* made with the Merz equatoreal of the *Collegio Romano*. P. Tacchini.

Conjunction of *Mars* and *Saturn* observed at the observatory, Melbourne. R. L. J. Ellery.

Comparison of Hansen's coefficients of the moon's latitude with those of Plana, Damoiseau, &c. R. Wilding.

The zodiacal light. Maxwell Hall.

Description of a self-registering micrometer. A. Bowden.

Observations of comet 1879 d (*Palisa*) made at Dun Echt observatory. Lord Lindsay.

Observations of the spectrum of comet 1879 d (*Palisa*). Lord Lindsay.

On a photograph of the solar spectrum showing dark lines of oxygen. J. C. Draper.

Note on the semi-diameter of the moon. E. Neison.

On the polarisation of the corona. A. Schuster.

A comparison between the right ascensions and north polar distances of the *Nautical Almanac* and the General Cape Catalogue for 1880. E. J. Stone.

On the evidence of a past connexion between four widely separated southern stars. E. J. Stone.

On the working of the speculum for the 37-inch reflector. G. Calver.

Note on two accompanying sketches of *Jupiter*. Captain W. Noble.

Note on the ellipticity of *Mars*, and its effect on the motion of the satellites. J. C. Adams.

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Observations of the solar eclipse 1879, July 18, made at the University Observatory, Strasburg. A. Winnecke.

Dec. 12. Note on the correction to the mean longitude of Hansen's lunar tables. S. Newcomb.

Occultation of 64 *Aquarii* by *Jupiter*, observed at the Melbourne Observatory. R. L. J. Ellery.

The Babylonian astronomy, part II. R. H. M. Bosanquet and A. H. Sayce.

New double stars. S. W. Burnham.

Discovery of a gaseous nebula in *Cygnus*. Rev. T. W. Webb.

Sur la variation du demi grand' axe des orbites planétaires. A. de Gasparis.

Occultation of stars by the moon, and phenomena of *Jupiter's* satellites, observed at the Stonyhurst observatory. Rev. S. J. Perry.

The November meteors. Rev. S. J. Perry.

On recent changes in the mean error of longitude of Hansen's lunar tables. W. T. Lynn.

Note on the gaseous nebula in *Cygnus*. G. Knott.

On a form of reading microscope which appears to combine most of the advantages of the German and English forms. E. J. Stone.

Note on the north polar distances of the Greenwich seven-year catalogue for 1860. A. M. W. Downing.

Observations of the outer satellite of *Mars* made at Dun Echt observatory. Lord Lindsay.

Note on *General Catalogue* (Supplement) No. 6000. Lord Lindsay.

Observations of Mr. Baxendell's new star in *Canis Minor*. Lord Lindsay.

Note on the spectrum of the red spot on *Jupiter*. Lord Lindsay.

Note on the Rev. T. W. Webb's new nebula. Lord Lindsay.

On the correction for personality required by the observations of the moon made with the Greenwich transit-circle. E. Neison.

Observations of the satellites of *Mars*. A. A. Common.

Note on *Mimas* and *Hyperion*. A. A. Common.

Note on a new star in *Canis Minor*. G. Knott.

Ephemeris for finding the positions of the satellites of *Uranus*, 1880. A. Marth.

Note on Mr. Webb's new nebula. A. Winnecke.

1880.

Jan. 9. Observations of the phenomena of *Jupiter's* satellites &c., made at the observatory, Adelaide. C. Todd.

Meteor showers. W. F. Denning.

Observations of occultations of stars by the moon, and

of phenomena of *Jupiter's* satellites, made at the Royal Observatory, Greenwich, in the year 1879. Astronomer Royal.

Meteor showers, 1870-79. H. Corder.

On the rotation period of *Jupiter*. H. Pratt.

Note on the remeasurement of a lunar photograph, in reply to Mr. Neison's criticism. C. Pritchard.

Changes of relative brightness of *Jupiter's* satellites. C. E. Burton.

Notes on "a catalogue of 10,300 multiple and double stars" &c., forming volume xl. of the *Memoirs of the Royal Astronomical Society*. Hours 0 to vi. H. Sadler.

Note referring to observations and estimations of the brightness of *Mars* which ought to be made in February and March 1880. A. Marth.

Estimations of the time of transits of the red mark on *Jupiter* across the central meridian. T. W. Backhouse.

On the systematic errors of the Greenwich north polar distances. W. H. M. Christie.

Mean area of spots and faculae upon the sun's disk, as measured on photographs for 1878 and 1879. Astronomer Royal.

Observations of the outer satellite of *Mars* made at the Royal Observatory, Greenwich. Astronomer Royal.

On the effects of personality on the tabular errors of the moon. E. Dunkin.

The Greenwich standard right ascensions. A. M. W. Downing.

On some changes in the markings of *Mars*. N. E. Green.